

REMARKS

Claims 1-7, 20-22, and 24-26 have been amended. Claims 1-26 are pending. In the "Response to Arguments" section on page 2 of the Office Action, the Examiner alleged that as a bar code has a width and a height, a bar code is two-dimensional. The Examiner concludes that Philyaw's code is a two-dimensional code and can be considered a multi-dimensional code.

Applicants submit that Philyaw is directed to a system in which a bar code 1606 (Fig. 16) is read by a bar code scanner 1600 "from paper sources 1602 ... [or a] product itself" (column 17, lines 14-15) to obtain a "product 'identifier'" (column 17, line 52) which is used by a "program operating on the PC302 ... [to provide] routing information ... after launching the browser on the PC 302 and connecting to the ARS 308" (column 17, lines 53-55). The ARS 308 is connected to "a database 310 of product codes and associated manufacturer URLs" (column 8, lines 1-2), so that an "advertiser server address URL ... [can be] obtained from the ARS database 310 ... and the request for the particular advertiser product information ... [can be] automatically routed back through the web browser on PC 302, over to the respective advertiser server for retrieval of the advertiser product information to the PC 302" (column 3, lines 7-13).

The present application is directed to an information conveying system using distribution material 31 (Fig. 3), 52 (Fig. 5), 61 (Fig. 6), etc. on which is printed pattern information, (e.g., 41 in Fig. 4 and illustrated in more detail in Fig. 2) using a multidimensional code. As initially described on pages 10-14, use of a multidimensional code results in an "amount of information which can be recorded per unit area [that] is significantly increased in comparison with the conventional barcode by recording information two-dimensionally, that is, in the horizontal and vertical direction" (page 10, lines 19-23). For example, each two-dimensional code employed in the present invention can carry a larger amount of information than a barcode (a one-dimensional code) does because the two-dimensional code carries data in both horizontal and vertical directions. The amount of information corresponding to one URL, for example, is so large that the whole of the one URL cannot be stored within a one-dimensional barcode.

As noted in the next sentence of the application, the density of information in the present invention's multi-dimensional code can be further "increased by using a color difference, etc." (page 10, lines 24-25), which is one way of using more than two dimensions. As noted on the following pages of the application, this enables the pattern information to include "multimedia information such as audio, a still image, a moving image, or ... a program, etc." (page 12, lines 14-16), compared to a conventional barcode that represents only numerical digits.

As a result, the pattern information can be used to distribute "conveyance information"

(e.g., page 4, line 17) that can, for example, include a "storage program [which] returns ... reply information, for example, by making a connection to a network" (page 4, lines 22-24) "based on the conveyance information restored from the pattern information" (page 5, lines 7-8). Many other alternative ways in which the conveyance information can be used to interact with a user by simply restoring the conveyance information from the pattern information are described in the specification and recited in the claims.

One of the benefits offered by the present invention is that it allows direct delivery to consumers a large volume of information as required to represent data of various forms, for example, data of an image, sound, program or the like, instead of being limited, as in the case associated with Philyaw.

Applicants respectfully submit that the independent claims of the present invention are patentable over Philyaw, as Philyaw does not teach each and every feature of the claims. For example, Philyaw fails to teach, "converting conveyance information conveyed from the information provider side to the consumer side into pattern information recording digital data as a multidimensional code, said multidimensional code being recorded in at least two directions," as identified by the new language of the independent claims.

Rather, unlike the multidimensional code of the present invention, Philyaw's bar code is simply a standard bar code in which information is merely recorded in only one direction, that is, in the horizontal direction. Although Philyaw states that bar codes are structured to be *read* in either direction, Philyaw does not provide any information regarding how the bar code is *recorded*. Regardless of how the bar code is read (that is, regardless of whether the bar code can be read in either direction), how a bar code is read does not affect how much information can be recorded in the bar code. Moreover, Philyaw clearly states that bar codes are structured to be read in *either* direction and does not provide that the bar code can be read in both directions.

Further still, Philyaw describes "bar codes" in a general sense. See Philyaw, column 20, line 31. Those of ordinary skill in the art would readily appreciate that a standard bar code is recorded in only the horizontal direction. See specification of the present invention, at page 10, lines 16-17 (supporting the assertion that standard, conventional barcodes include information that is recorded only in the horizontal direction).

In response to the Examiner's argument regarding a bar code having a width and a height, the width and height of the bar code are simply characteristics and are not an indication that that bar code was recorded in at least two directions. Although Philyaw states that a bar

code can be any type of image having information encoded therein, Philyaw does not provide information pertaining to a multidimensional code being recorded in at least two directions.

On page 3 of the Office Action, the Examiner states that Philyaw discloses that the “embedded video code” could be a “grid of dark and white regions” and that the system would require an array of optical detectors in a manner in which one array would be required for each region of the grid. The Examiner concludes that Philyaw’s having a grid pattern and an array of optical detectors allows one to interpret Philyaw as teaching the use of a multidimensional code. In response, unlike the present invention, Philyaw’s grid pattern is not recorded in the manner identified by the new language of claim 1, for example.

Therefore, independent claims 1-7, 20-22, and 24-26 are patentable over Philyaw, as Philyaw does not teach, “converting conveyance information conveyed from the information provider side to the consumer side into pattern information recording digital data as a multidimensional code, said multidimensional code being recorded in at least two directions,” as recited in claim 1, for example.

Independent claims 1-7, 20-22, and 25-26 are patentable over Philyaw, as Philyaw fails to teach, “returning reply information . . . based on the conveyance information that was restored from the pattern information,” as recited in the claims.

The Examiner argues on page 3 of the Office Action that Philyaw teaches that, “conveyance information is conveyed from the provider side to a consumer side” by Philyaw’s disclosure regarding transmitting a bar code to the consumer. Assuming *arguendo* that the information in Philyaw’s bar code can be interpreted as conveyance information, Philyaw does not disclose information regarding returning reply information . . . based on the conveyance information that was restored from the pattern information.

Although Philyaw states that its bar code is decoded and that information relating to an ID for the input device is appended to the decoded information and forwarded to the Advertiser Reference Server (ARS), the appended information is not reply information that is returned *based on the conveyance information* that was restored, as the appended information merely relates to an ID for the input device.

Therefore, in addition to the reasons previously presented, claims 1-7, 20-22, and 25-26 are patentable over Philyaw for the reason presented above.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

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Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

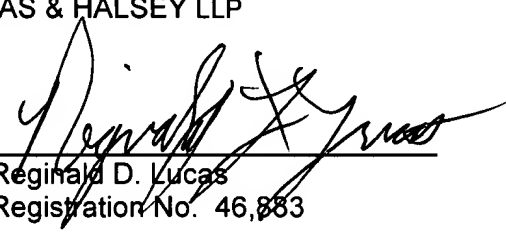
Respectfully submitted,

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